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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/992,644

11/13/2001

Jonathan S. Goldick

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EXAMINER

CHOUDHURY, AZIZUL Q

ART UNIT

PAPER NUMBER

2145

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/992,644	<b>Applicant(s)</b> GOLDICK, JONATHAN S.	
	<b>Examiner</b> Azizul Choudhury	<b>Art Unit</b> 2145	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

The following action is in response to the correspondence received on May 30, 2006.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US Pat No: US005175852A) in view of Jones et al ("Performance of the IBM General Parallel File System"), hereafter referred to as Johnson and Jones, respectively.

1. With regards to claim 1, Johnson teaches through Jones a method of locking a resource in a distributed environment, the method comprising: receiving a request to access the resource, wherein the request originates from a requesting client computer system (column 13, lines 57-60, Johnson); creating a lock having a predetermined type, wherein the predetermined type provides availability to other client computer systems for predetermined purposes (column 20, line 60 – column 21, line 11, Johnson); returning a lock token upon the creation of the lock to the requesting client computer system; and performing the requested access (Johnson's design allows for various file

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locks (column 21, lines 1-30, Johnson) in a network environment (Figure 7, Johnson).

However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

2. With regards to claim 2, Johnson teaches through Jones a method wherein the request to access the resource provides an indication as to the type of access and to the type of lock to be created during the access, said method further comprising: prior to the act of creating a lock, determining whether the resource is locked by another client computer system; and wherein the act of creating a lock only occurs if no existing lock conflicts with the type of access requested or the type of lock requested (The write locks of Johnson's design are exclusive locks (column 21, lines 1-11, Johnson). Hence, the lock can only be activated if no existing lock is present. However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The

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system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

3. With regards to claim 3, Johnson teaches through Jones a method wherein the predetermined type of the lock provides other client computer systems access to the resource for the purpose of reading the resource (Johnson's design allows for read locks (column 21, lines 1-11, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Read rights are one such right (Section 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

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4. With regards to claim 4, Johnson teaches through Jones a method wherein the predetermined type of the lock provides other client computer systems access to the resource for the purpose of writing the resource (Johnson's design allows for write locks (column 21, lines 1-11, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Write rights are one such right (Section 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

5. With regards to claim 5, Johnson teaches through Jones a method wherein the predetermined type of the lock provides other client computer systems access to the resource for the purpose of deleting the resource (Johnson's design provides for file deletion means (column 14, lines 9-10, Johnson). File deletion means are an obvious feature of file systems. However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The

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system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

6. With regards to claim 6, Johnson teaches through Jones a method wherein the predetermined type of the lock provides other client computer systems access to the resource for the purpose of two of the following: reading, deleting and writing the resource (Johnson's design allows for read and write locks (column 21, lines 1-11, Johnson). Johnson's design also provides for file deletion means (column 14, lines 9-10, Johnson). File deletion means are an obvious feature of file systems. However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Read rights and write rights are one such right (Section 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the

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teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

7. With regards to claim 7, Johnson teaches through Jones a method wherein more than one client computer system can lock the resource (Johnson's design allows for overlapping read locks (column 21, lines 1-11, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). GPFS allows for concurrent access to a single file (Section 2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

8. With regards to claim 8, Johnson teaches through Jones a method wherein the requesting client computer system requests the type of lock to be created and a server computer system creates and maintains the lock (Johnson's design allows for file locking in a networked environment (Figure 13, Johnson). However, Johnson does not detail the use of tokens.



In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

9. With regards to claim 9, Johnson teaches through Jones a method wherein the lock is advisory (Johnson's design allows for advisory locks (column 21, lines 11-30, Johnson)). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

10. With regards to claim 10, Johnson teaches through Jones a computer program product encoded upon a computer readable medium readable by a computer and encoding instructions for executing the method recited in claim 1 (Johnson's design can be implemented as a program (column 2, lines 52-54, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Jones also teaches that GPFS can be implemented as a software (Section 2.1, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

11. With regards to claim 11, Johnson teaches through Jones a method of maintaining an advisory lock on a resource in a distributed environment, the method comprising: receiving an access request for the resource from a requesting client computer system; determining whether the resource is locked by another computer system (column 13, lines 57-60, Johnson); if the resource is locked by another computer system with a conflicting advisory lock then denying access if the requesting client computer system honors advisory locks (advisory locks prevent a process from reading or writing from/to

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a locked file (column 21, lines 11-30, Johnson)); and the requesting client computer system does not honor the advisory lock or if the resource is not locked with a conflicting lock, then creating a lock, returning a lock token upon creation of the lock and performing the access (advisory locks can be placed if there is no conflicting locks (column 21, lines 11-30, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Jones also teaches that GPFS can be implemented as a software (Section 2.1, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

12. (Currently amended) Johnson teaches through Jones a computer program product encoded upon a computer readable medium readable by a computer and encoding instructions for executing the method recited in claim 11 (Johnson's design can be implemented as a program (column 2, lines 52-54, Johnson). However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones). Jones also teaches that GPFS can be implemented as a software (Section 2.1, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

13. (Original) With regards to claim 13, Johnson teaches through Jones a computer-readable medium having stored thereon a locked resource, wherein the locked resource comprises: a resource object data section for storing actual object data; and a lock object, wherein the lock object may comprise one or more of the following properties: nosharewrite, nosharedelete, noshareread, and advisory (Johnson's design allows for read and write locks (column 21, lines 1-11, Johnson). Johnson's design also provides for file deletion means (column 14, lines 9-10, Johnson). File deletion means are an obvious feature of file systems. However, Johnson does not detail the use of tokens.

In the same field of endeavor, Jones describes the GPFS system by IBM. The system allows for concurrent access to files and allows for the files to be locked. The system uses tokens to negotiate access rights to files and allows for modifications to

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files to be made according to negotiated access rights (Sections 2, 2.1 and 2.2, Jones).

Read rights and write rights are one such right (Section 2.2, Jones).

Since both Johnson and Jones teach file lock systems, it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Johnson and Jones, to allow for parallel applications to have simultaneous access to a single file or to a collection of files (Section 1, Jones)).

### ***Response to Remarks***

The amendment received on May 30, 2006 has been carefully examined but is not deemed fully persuasive. In lieu of the amendment to claim 7, the 112-type rejection has been withdrawn. The following are the examiner's response to the applicant's main remarks.

The first point of contention remarked upon by the applicant involves the combination of the Johnson prior art with the Jones prior art. The applicant contends that the examiner has failed to state a prima facie case of obviousness. The examiner disagrees with this assertion and is convinced that 1) a prior art or the combination of prior arts, do teach or suggest all the claim limitations; 2) motivation does exist to combine the prior arts and; 3) there does exist reasonable expectation of success.

The second point of contention remarked upon by the applicant contends that neither prior art are applicable since the claimed invention is for distributed computing environments and maintaining lock properties within that environment. The examiner

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disagrees with this and contends that the prior arts are pertinent. The applicant suggests that their design involves WebDAV, essentially a protocol for sharing documents in a distributed environment (such as the web). The examiner reminds the applicant that the claims do not mention WebDAV. The claims cite a distributed environment and even the Johnson prior art's title states that the design is for a distributed environment. In addition, Figure 4 illustrates a distributed file sharing design enabled by Johnson's teachings. Plus, Johnson teaches the use of file locks as well (column 20, lines 60-67, Johnson). The Jones prior art is pertinent since it teaches the concept of file locks through tokens in a computing design where files are shared. The design is enabled through a network (Section 2, Jones). Hence, the prior arts are pertinent to the claimed invention.

The third point of contention remarked upon by the applicant concerns the claimed trait of "creating a lock" and the amended feature of "returning a lock token...to the requesting client computer system." The applicant contends that neither prior arts teach creating a lock and returning the lock token to the requesting client. The applicant disagrees. The Jones prior art teaches the use of file locks and how tokens are applied to manage locks for users (Section 2.1, Jones). If tokens are used for locks, then they must have been created; it is inherent with Jones' design. Jones also clearly states in section 2.1 that each node (client) has an mmfsd daemon. When the node (client) wants access to a file, the mmfsd must negotiate to get the requested token. Hence, the token is returned to the client as claimed.

The final point of contention remarked upon by the applicant concerns the claimed trait of "nosharedelete" within claim 13. Applicant contends that neither prior art teach "nosharedelete." Johnson's design allows for read and write locks (column 21, lines 1-11, Johnson). Johnson's design also provides for file deletion means (column 14, lines 9-10, Johnson). File deletion means are an obvious feature of file systems. Furthermore, the applicant claims "wherein the lock object may comprise one or more of the following properties: nosharewrite, nosharedelete, noshareread, and advisory." The claim does not clearly cite if the lock object must feature the property of nosharedelete.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571) 272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

  
JASON CARDONE  
SUPERVISORY PATENT EXAMINER